

## Purchase Order Receipt Listing

Wednesday, August 30, 2017 3:26:52 PM

All amounts are calculated in domestic currency.

Page 1 of 1

All Vendors PO ID PO37490 Receipt Dates from 8/29/2017 to 8/29/2017 All Line Item Types  
 All Item ID/GL/WOs All Rec. Employees All Currencies  
 Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject (PO U/M)	Book Amt
PO37490	1	VU-TWM004	TW Metals	M304TR0.500W.035 f		8/29/2017	8/29/2017	40.0000	0	\$0.00	
USD	No			304 RD Tube .500 x f .035W		40.0000	PLOU01	0.0000	0		
				m138403							
				DAS 5 9-89		60.0000		0.0000	0	\$0.00	
2	No	M304TR0.750W.049 f	304 RD Tube .750 x f .049W		8/29/2017	8/29/2017	60.0000	0.0000	0		
				m138403							
				DAS 5 9-89		20.0000		0.0000	0	\$0.00	
3	No	M304TR0.875W.065 f	304 round tube .875 x f .065W		8/29/2017	8/29/2017	20.0000	0.0000	0		
				m138403							
				DAS 5 9-89		24.0000		0.0000	0	\$0.00	
4	No	M6061T6T0.750W.12 f			8/29/2017	8/29/2017	24.0000	0.0000	0		
				5							
				6061-T6 RD Tube f .750 x .125W		20.0000	PLOU01	0.0000	0		
				m138403							
				71401-45 PROCUREMENT QUALITY CLAUSES		8/29/2017	8/29/2017	1.0000	0.0000	0	\$0.00
5	No	m138403			1.0000	PLOU01		0.0000	0		

Total Received Quantity:  
 Total Qty to Inspect (PO U/M): 0.0000  
 Total Reject Quantity: 0.0000  
 Total Receipt Value: \$0.00  
 Total Balance Due Quantity: 0.0000

Total Received Quantity: 145.0000  
 Total Qty to Inspect (PO U/M): 0.0000  
 Total Reject Quantity: 0.0000  
 Total Receipt Value: \$0.00  
 Total Balance Due Quantity: 0.0000



O'Neal High-Performance Metals Group

Packing  
Slip

ORDER NO.: 80876281 FROM: CHIC PAGE 1

CUST NUMBER: 1203820 NET WGT: 47.123 REQ.DATE: 08/29/17 CONFIRMED  
SOLD TO:  
DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY ON  
CANADA CN K6A 1K7  
SHIP TO:  
DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY ON  
ONTARIO CANADA CN K6A 1K7

SALESPERSON: DONNA SMALLEY SHIP BY: 08/23/17  
TERMS: NET 30 DAYS VIA: COMMON CARRIER  
F.O.B.: SHIPPING POINT FREIGHT: PREPAID  
CUST ORD NO.: P037490 RELEASE NO.:  
RECEIVING PHONE:

LINE	ITEM DESCRIPTION	WIDTH	LENGTH
0001	36449 SMLS CD 304/L A269 1/2 OD X .035 WA	20'	ML
CLN#	ORD QTY INVOICE QTY	SHIPPED QTY	WT
	40.000 FT 40.000 FT	40.000 FT	6.950

(PCS 2)

\*\* 1 TEST REPORTS REQUIRED \*\*  
\*\* 1 CERTS REQUIRED \*\*

ECCN: 2B999.g Export License: NLR Expiration Date: 0/00/00  
PO:49363331 HT:YX1108592 PC: 2 CUSTOMER QTY: UOM  
MLT:CHINA MFG:CHINA SLB/CL:-

0002	36860 SMLS CD 304/L A269 3/4 OD X .049 WA	20'	CL
CLN#	ORD QTY INVOICE QTY	SHIPPED QTY	WT
	60.000 FT 60.000 FT	60.000 FT	22.003

(PCS 3)

\*\* 1 TEST REPORTS REQUIRED \*\*  
\*\* 1 CERTS REQUIRED \*\*

ECCN: 2B999.g Export License: NLR Expiration Date: 0/00/00  
PO:49362750 HT:YX1606643 PC: 3 CUSTOMER QTY: UOM  
MLT:CHINA MFG:CHINA SLB/CL:-

0003	36969 SMLS CD 304/L A269 7/8 X .065 WA	20'	CL
CLN#	ORD QTY INVOICE QTY	SHIPPED QTY	WT
	20.000 FT 20.000 FT	20.000 FT	11.244

(PCS 1)

\*\* 1 TEST REPORTS REQUIRED \*\*  
\*\* 1 CERTS REQUIRED \*\*

ECCN: 2B999.g Export License: NLR Expiration Date: 0/00/00  
PO:49361379 HT:161121W0 PC: 1 CUSTOMER QTY: UOM  
MLT:CHINA MFG:CHINA SLB/CL:-

8/8/130





O'Neal High-Performance Metals Group



Packing  
Slip

ORDER NO.: 80876281 FROM: CHIC PAGE 3

CUST NUMBER:	1203820	NET WGT:	47.123	REQ. DATE:	08/29/17	CONFIRMED
SOLD TO:	SHIP TO:					
DART AEROSPACE LTD	DART AEROSPACE LTD					
1270 ABERDEEN ST	1270 ABERDEEN ST					
HAWKESBURY ON	HAWKESBURY ON					
CANADA	ONTARIO CANADA					CN K6A 1K7
SALESPERSON:	DONNA SMALLEY		SHIP BY:	08/23/17		
TERMS:	NET 30 DAYS		235 TUBEWAY			
F.O.B.:	SHIPPING POINT		CAROL STREAM	IL 60188		
CUST ORD NO.:	P037490					
VIA:	COMMON CARRIER					
FREIGHT:	PREPAID					
RELEASE NO.:						
RECEIVING PHONE:						

"TW Metals MSDS data is available on our web site at [www.twmetals.com](http://www.twmetals.com). MSDS data can be found under the Technical Resources Tab, Product Statistics & Data and the TW Metals MSDS's heading. If you do not have web site access you may telephone 610-458-1300 and we will mail or fax a copy of our current MSDS data to your location."

"CERTIFICATE OF CONFORMANCE"

"TW Metals certifies that the material supplied on this purchase order and contained in the heat/lot number referenced above has been manufactured, inspected, and tested in accordance with the material specification. These records are on file at TW Metals. Packaging material for shipments to Europe and China consists of manufactured wood products and complies with the European emergency measures for coniferous non-manufactured wood packing material"

Authorized Test Report Clerk

*Luziraida Mataz*

Date: 8/23/17

These commodities have been exported from the United States in accordance with the U.S. export control laws, export administrations regulations. Diversion contrary to U.S. law prohibited.

## MILL TEST REPORT

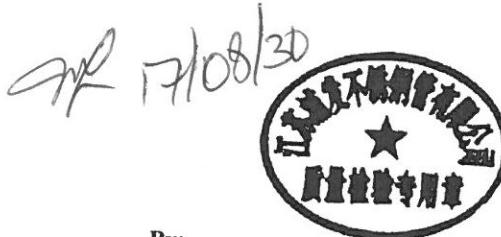
Purchaser.: TW METALS-Carol Stream		Certificate No.: 2017-6-3							
Contract No.: TWM P.O.No.: M4936331		Date of Issue.: 2017.6.12							
Commodity: Stainless Steel Seamless Tubes	Specifications: ASTM A213-15c/ASME SA213-15/ASTM A269-15a EAW								
Process: Cold Drawn	Delivery Condition: OD Polished to 240 Grit								
Steel Grade	Heat Number	Lot Number	Dimensions	Quantity					
				Pieces	Feet				
TP304/TP304L	YX1108-592	3-93	1/2"x0.035"x20'	500	10,000				
Chemical Composition by Weight (%)									
Element	C	Mn	P	S	Si	Cr	Ni	Mo	Co
Requirements	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00	18.00-20.00	8.00-12.00	-	-
Ladle Analysis	0.025	0.64	0.032	0.002	0.36	18.50	8.05	-	-
Product Analysis	0.024	0.63	0.035	0.002	0.35	18.79	8.04	-	-
Mechanical Properties									
Test Item	Elongation (% in 2")		Tensile Strength (PSI) Rm			Yield Strength (PSI) Rp / 0.2%			
	≥35		≥75,000			≥30,000			
Test Results	61/62		99,000/100,000			44,000/45,000			
Test Item	Reduction of Area Z (%)		Hardness		Cold Bend Test	Flaring Test	Flattening Test	Flange Test	P.M.I. Test
	- HRB≤80		-		-	22%	e=0.09	-	-
Test Results	- 77/79		-		Passed	Passed	-	-	OK
Test Item	Eddy Current Test		Air Underwater Pressure Test	Ultrasonic Test	Intergranular Corrosion Test	Macroscopic Inspection			
	ASTM E 426		-	-	ASTM A262 E	End Cut	Appearance		
Test Results	Passed		-	-	OK	OK	OK		

ISO 9001:2008 Certified by CAS 117 16 QU 0053-06 ROS

PED Certified by SZUTEST 2195-PED-1526002

## Additional Remarks:

- (1) All tubes annealed to above 1900 Deg F and water quenched below 800 Deg F in 3 minutes
- (2) All tubes tested per ASTM A1016-14
- (3) Materials is NACE MR0103-2007 compliant (per Section 2.5)
- (4) Materials is NACE MR0175/ISO 15156-2003 compliant (per Section 4.2.1)
- (5) In Compliance with EN 10204-3.1
- (6) In Compliance with RoHS Stipulation
- (7) No weld repair performed
- (8) Free from mercury contamination
- (9) Free from radioactive contamination
- (10) Billets melt and pipes/tubes manufactured in China
- (11) All tubes 100% PMI tested
- (12) All tubes 100% Eddy Current tested

CANNOT CERTIFY COMPLIANCE  
FAR BAA / DFARS BAA / FAR TAA

By:

*James Shi*

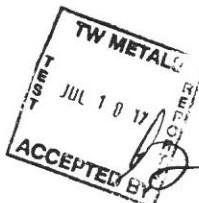
James Shi / Manager

Quality Control Department

We hereby certify that this report is true and correct.

Jiangsu Pufa Stainless Steel Tube Co., Ltd.

No. 99, Xuean Middle Road, Dongchen Town, Rugao City, Jiangsu Province, P.R.China



## MILL TEST REPORT

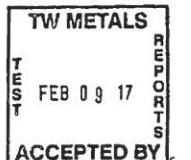
Purchaser.: TW METALS-Carol Stream			Certificate No.: 2017-1-57								
Contract No.: TWM P.O.No.: M49362750			Date of Issue.: 2017.1.11								
Commodity: Stainless Steel Seamless Tubes			Specifications: ASTM A213-15c/ASME SA213-15/ASTM A269-15a EAW								
Process: Cold Drawn			Delivery Condition: OD Polished to 240 Grit								
Steel Grade	Heat Number	Lot Number	Dimensions	Quantity							
				Pieces	Feet						
TP304/TP304L	YX1606-643	5 9-89	12-14 3/4"x0.049"x20"	300	6,000						
Chemical Composition by Weight (%)											
Element	C	Mn	P	S	Si	Cr	Ni	Mo	Co		
Requirements	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00	18.00-20.00	8.00-12.00	-	-		
Ladle Analysis	0.019	1.22	0.034	0.002	0.31	18.23	8.09	-	-		
Product Analysis	0.021	1.26	0.030	0.003	0.26	18.53	8.26	-	-		
Mechanical Properties											
Test Item	Elongation (% in 2")		Tensile Strength (PSI) Rm			Yield Strength (PSI) Rp / 0.2%					
Requirements	≥35		≥75,000			≥30,000					
Test Results	63/64		97,000/98,000			41,000/42,000					
Test Item	Reduction of Area Z (%)	Hardness	Cold Bend Test	Flaring Test	Flattening Test	Flange Test	P.M.I. Test				
Requirements	-	HRB≤80	-	22%	e=0.09	-	-				
Test Results	-	76/78	-	Passed	Passed	-	OK				
Test Item	Eddy Current Test	Air Underwater Pressure Test	Ultrasonic Test	Intergranular Corrosion Test	Macroscopic Inspection						
Requirements	ASTM E 426	-	-	ASTM A262 E	End Cut	Appearance					
Test Results	Passed	-	-	OK	OK	OK					

ISO 9001:2008 Certified by CAS 117 16 QU 0053-06 ROS

PED Certified by SZUTEST 2195-PED-1526002

## Additional Remarks:

- (1) All tubes annealed to above 1900 Deg F and water quenched below 800 Deg F in 3 minutes
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- (7) No weld repair performed
- (8) Free from mercury contamination
- (9) Free from radioactive contamination
- (10) Billets melt and pipes/tubes manufactured in China
- (11) All tubes 100% PMI tested
- (12) All tubes 100% Eddy Current tested

CANNOT CERTIFY COMPLIANCE  
FAR BAA / DFARS BAA / FAR TAA

By:

*James Shi*

James Shi / Manager  
Quality Control Department

We hereby certify that this report is true and correct.

Jiangsu Pufa Stainless Steel Tube Co., Ltd.  
No. 99, Xuean Middle Road, Dongchen Town, Rugao City, Jiangsu Province, P.R.China

# WANG

## JIAXING MT STAINLESS STEEL CO.,LTD

### MILL TEST CERTIFICATE

EN10204 3.1 CERTIFICATE

ISO 9001: 2008 TUV SUD CERT REGISTRATION No.: 01 100 095954  
PED/97/23/CE EURO CERT CERTIFICATE NO:CN/CE.1110S1-02/14



TÜV Rheinland

Precisely Right.

CERTIFICATE NO.: 17MTC-040401  
SALES CONTRACT NO.: M 49361379  
COMMODITY: STAINLESS STEEL SEAMLESS PIPE  
SPECIFICATION: ASTM A213-15c ASTM A269-15a, ASME SA213-15 AVG WALL

Heat No. 1611121W0 Dimensions O.D. 5 W.T. (INCH) 0.065 Length (FT) 20

Purchaser: KASUGAI CO., LTD.  
Order No: 49361379  
Date of Report: 2017-4-4

Steel Grade	Heat No.	Dimensions			Chemical Composition (W.T. %)					Macroscopic Inspection		
		DAS	O.D. (INCH)	W.T. (INCH)	Length (FT)	FT	Piece	Process	Delivery Condition	End Cut	Appearance	
TP304/304L	1611121W0	5	7/8	0.065	20	980	49	Cold-Drawn	Annealed & Pickled & 320 grit min	Passed	Passed	
Element	C	Si	Mn	P	S	Cr	Ni	Mo	Ti	-	-	
Requirements	≤0.035	≤1.00	≤2.00	≤0.045	≤0.030	18.0-20.0	8.0-12.0	-	-	-	-	
Ladle Analysis	0.02	0.37	1.33	0.035	0.001	18.25	8.04	-	-	-	-	

### Mechanical Properties

Test Item	Y.S. (MPa) Rm0.2	T.S. (MPa) Rm	E.L. (%) In 2in	Reduction of Area Z. (%)	Hardness HRB	Cold Bend Test	Flaring Test	Flattening Test	P.M.I. TEST
Requirements	≥170	≥485	≥35	-	≤80	-	-	e=0.09	-
Test Results	280	585	62	-	77	Passed	Passed	Passed	Passed

### Non Destructive Tests

Test Item	Eddy Current Test	Remarks: - ASTM A213-15c ASTM A269-15a, ASME SA213-15 AVG WALL - PIPES TESTED PER ASTM A1016 - SOLUTION HEAT TREATMENT: 1050°C X 1.5m/min - NO WELD REPAIR WAS PERFORMED. - PMI TESTING DONE ON EACH PIPE – SATISFACTORY IN COMPLIANCE WITH NACE MR0175/ISO 15156-2015 - FREE FROM MERCURY CONTAMINATION - MATERIAL IS FREE FROM RADIOACTIVITY - VISUAL CHECK IS SATISFACTORY - COUNTRY OF ORIGIN: CHINA						
Requirements	ASTM E 426	- COUNTRY OF MELT: CHINA						
Test Results	Passed	1. WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND THE TEST RESULTS ARE IN COMPLIANCE WITH THE TERMS OF THE PURCHASE ORDER OR CONTRACT 2. THE CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE COMPANY.						

TM-METALS	R
E	E
P	O
T	T
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ACCEPTED BY

XG



*Brent Glass*

## CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM  
FABRICATED PRODUCTS, LLC  
6573 W. WILLIS ROAD  
CHANDLER, AZ 85226

CUSTOMER PO NUMBER:		CUSTOMER PART NUMBER:		PRODUCT DESCRIPTION:						
M49372373-1		42891		Drawn Seamless Tube/Pipe						
KAISER ORDER NUMBER:	LINE ITEM:	SHIP DATE:	KAISER LOT NUMBER:	ALLOY:	TEMPER:					
223652	001	07/18/2017	F00245200	6061	T6					
WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:					
1334.000 LB	384.000 PCS	226090			12.000 FT					
SHIP TO:		SOLD TO:								
TW METALS INC 235 WEST TUBEWAY DRIVE CAROL STREAM, IL 60188 USA		TW METALS INC 760 CONSTITUTION DRIVE SUITE 204 EXTON, PA 19341 USA								

### Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CON% IACS	BEND
F00245200	0001	1	48.6	43.0	17.0	N/A	N/A	N/A
F00245200	5 9-89	0002	48.7	42.8	20.0	N/A	N/A	N/A

### Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
D20408	.59	.19	.21	.06	1.01	.06	.01	.01	.00	.00	.00	.01	.02

### Applicable Requirements:

Description: OD: 0.7500"; Wall: 0.1250"; Round @  
 AMS4082P AMS-WW-T-700/6C ASTM B210-12 WW-T-700/6F  
 WE TAKE EXCEPTION TO PARA. 5.2.1., Per AMS4082P, WAS NOT OILED.  
 This Product Complies to FAR BAA, DFARS BAA, FAR TAA  
 COMPLIES TO DIN EN 10204 JAN 2005  
 No Weld Repair. Mercury Free.



### Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA  
 MATERIAL COMPLIES WITH FAR BAA (FAR 52.225-1, BUY AMERICAN ACT- SUPPLIES), DFARS BAA  
 (DFARS 252.225-7001 BUY AMERICAN ACT & BAL OF PAYMENTS PROG), AND FAR TAA (FAR 52.225-5  
 TRADE AGREEMENTS).

Plant Serial: 00025588

Kaiser Order Number: 223652

Line Item: 001

# **KAISER**

## **ALUMINUM**

### **FABRICATED PRODUCTS**

KAISER ALUMINUM  
FABRICATED PRODUCTS, LLC  
6573 W. WILLIS ROAD  
CHANDLER, AZ 85226

*Bobby Goss*

#### **CERTIFIED TEST REPORT**

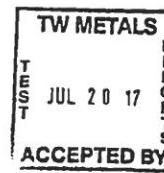
<http://Online.KaiserAluminum.com>

##### **CERTIFICATION**

Kaiser Aluminum Fabricated Products, LLC ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file subject to examination.

Hans Kattentidt, Quality Manager

*Hans Kattentidt*



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: Y304TRD.500W.035  
 DATE: 17/08/30

PO / BATCH NO.: 37490/138403

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 40  
 QUANTITY INSPECTED: 40  
 QUANTITY REJECTED: \_\_\_\_\_

THICKNESS ORDERED: .500  
 THICKNESS RECEIVED: .500  
 SHEET SIZE ORDERED: \_\_\_\_\_  
 SHEET SIZE RECEIVED: \_\_\_\_\_

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	X (N)	
CORRECT FINISH	Y N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	X N	
CORRECT MATERIAL PER M-DRAWING	X N	ASTM A213
CORRECT THICKNESS	X N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	X N	HEAT# YX 1108592
CORRECT MATERIAL IDENTIFICATION	Y N	
CORRECT M# ON THE MATERIAL	Y N	M138403
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>JK</u>	SIGNED OFF BY: _____
DATE: <u>17/08/30</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING

SPECIFICATION: ASTM A213 OR ASME SA213 OR ASTM A269

WALL THICKNESS TOLERANCE PER ASTM A269 AS FOLLOWS:

OD (IN)	PERMISSABLE OD TOL (IN)	PERMISSABLE WALL TOL
UP TO $\frac{1}{2}$ "	±0.005	±15%
$\frac{1}{2}$ " TO $1\frac{1}{2}$ " EXCL.	±0.005	±10%
$1\frac{1}{2}$ " TO $3\frac{1}{2}$ " EXCL.	±0.010	±10%
$3\frac{1}{2}$ " TO $5\frac{1}{2}$ " EXCL.	±0.015	±10%
$5\frac{1}{2}$ " TO 8" EXCL.	±0.030	±10%

PART NUMBER: M304TRD<sup>OD</sup>W<sup>TTT</sup>

WHERE "D" = OUTSIDE DIAMETER IN INCHES  
AND "TTT" = WALL THICKNESS IN INCHES

EG. 0.375" OD X 0.065" WALL TUBING = M304TR0.375W.065

, 300X, 035W

B	REFORMA DWG. ADD. SPECS (ZN DB-1). REF/PAR 08-020A	CP	08-10-20
A	NEW ISSUE	DS	01-06-08
REV	BY	DATE	
DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	M304TR	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	304/316 ROUND TUBING	NTS
DATE	08-10-20	Copyright © 2001 by DART Aerospace Ltd.	This document is private and confidential and is given to the customer on a non-disclosure basis. It is not to be reproduced or distributed outside the customer's organization.

**RELEASED**

*[Signature]*

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304Tro, 750Lw.049  
 DATE: AUG 31 2017

PO / BATCH NO.: PC3749C/M138403

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 60'  
 QUANTITY INSPECTED: 60'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: w.049  
 THICKNESS RECEIVED: w.046  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	( <u>N</u> )	
CORRECT FINISH	( <u>Y</u> )	N	
CORROSION	Y	( <u>N</u> )	
CORRECT GRAIN DIRECTION	( <u>Y</u> )	N	
CORRECT MATERIAL PER M-DRAWING	( <u>Y</u> )	N	<i>ASTm A213</i>
CORRECT THICKNESS	( <u>Y</u> )	N	
PHOTO REQUIRED	( <u>Y</u> )	( <u>N</u> )	
CORRECT REF # TO LINK CERT	( <u>Y</u> )	N	<i>HT # XX1606643</i>
CORRECT MATERIAL IDENTIFICATION	( <u>Y</u> )	N	
CORRECT M# ON THE MATERIAL	( <u>Y</u> )	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	( <u>N</u> )	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	( <u>N</u> )	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____
DATE: <u>AUG 31 2017</u> <u>9-89</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI304/316 SS SEAMLESS ROUND TUBING

SPECIFICATION: ASTM A213 OR ASME SA213 OR ASTM A269

WALL THICKNESS TOLERANCE PER ASTM A269 AS FOLLOWS:

DAS	OD (IN)	PERMISSABLE OD TOL. (IN)	PERMISSABLE WALL TOL.
5	UP TO $\frac{1}{2}$ " EXCL.	$\pm 0.005$	$\pm 15\%$
	$\frac{1}{2}$ " TO $3\frac{1}{2}$ " EXCL.	$\pm 0.005$	$\pm 10\%$
	$3\frac{1}{2}$ " TO $5\frac{1}{2}$ " EXCL.	$\pm 0.010$	$\pm 10\%$
9-89	$5\frac{1}{2}$ " TO 8" EXCL.	$\pm 0.015$	$\pm 10\%$
	9-89	$\pm 0.030$	$\pm 10\%$

PART NUMBER:

M304TR[D|D|D|W|T|T|  
OD | | WALL]

WHERE "D,DDD" = OUTSIDE DIAMETER IN INCHES  
AND ".T,T,T" = WALL THICKNESS IN INCHES  
E.G. 0.375" OD X 0.065" WALL TUBING = M304TR0.375W.065



B	REFORMAT DWG. ADD SPECS (ZN DB-1), REF PAR 08-020A			CP	08/10/20	
A	NEW ISSUE			DS	01/06/08	
REV.	DESCRIPTION	BY	DATE			
<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA						
DESIGN	<i>[Signature]</i>	<i>[Signature]</i>	DRAWN	DRAWING NO		
DRAWN			CHECKED	<i>M304TR</i>		
CHECKED			MF. APPR.	TITLE		
MF. APPR.			APPROVED	<i>M304/316 ROUND TUBING</i>		
APPROVED			DE APPR.	SCALE		
DE APPR.			DATE	NTS		
DATE	08.10.20					

A  
SHEET 1 OF 1  
REV. B  
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**RELEASED**  
*08/06/08 MB*

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 1304TR0,875 W.065  
 DATE: AUG 31 2017

PO / BATCH NO.: D037490/138403

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 20'  
 QUANTITY INSPECTED: 20'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: w.065  
 THICKNESS RECEIVED: w.068  
 SHEET SIZE ORDERED: \_\_\_\_\_  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <u>N</u>	
CORRECT FINISH	Y <u>N</u>	
CORROSION	Y <u>N</u>	
CORRECT GRAIN DIRECTION	Y <u>N</u>	
CORRECT MATERIAL PER M-DRAWING	Y <u>N</u>	<i>A5tm A213</i>
CORRECT THICKNESS	Y <u>N</u>	
PHOTO REQUIRED	Y <u>N</u>	
CORRECT REF # TO LINK CERT	Y <u>N</u>	<i>H#161721W0</i>
CORRECT MATERIAL IDENTIFICATION	Y <u>N</u>	
CORRECT M# ON THE MATERIAL	Y <u>N</u>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <u>N</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <u>N</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>5</u>	SIGNED OFF BY: _____
DATE: <u>9-89 AUG 31 2017</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING  
 SPECIFICATION: **DART**  
 ASTM A213 OR ASME SA213 OR ASTM A269  
 PART NUMBER: **M304TRD.DDDW|TTT**  
 WHERE "D.DDD" = OUTSIDE DIAMETER IN INCHES  
 AND ".TTT" = WALL THICKNESS IN INCHES  
 EG. 0.375" OD X 0.065" WALL TUBING = M304TR0.375W.065

**△** PURCHASE MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING

SPECIFICATION: **DART**  
 ASTM A213 OR ASME SA213 OR ASTM A269

WALL THICKNESS TOLERANCE PER ASTM A269 AS FOLLOWS:

OD (IN)	PERMISSABLE OD TOL. (IN)	PERMISSABLE WALL TOL.
UP TO $\frac{1}{2}$ " EXCL	$\pm 0.005$	$\pm 15\%$
$\frac{1}{2}$ " TO $\frac{3}{4}$ " EXCL	$\pm 0.005$	$\pm 10\%$
$\frac{3}{4}$ " TO $5\frac{1}{2}$ " EXCL	$\pm 0.010$	$\pm 10\%$
$5\frac{1}{2}$ " TO 8" EXCL	$\pm 0.015$	$\pm 10\%$
	$\pm 0.030$	$\pm 10\%$

PART NUMBER:

**M304TRD.DDDW|TTT**  
 OD | WALL

WHERE "D.DDD" = OUTSIDE DIAMETER IN INCHES

AND ".TTT" = WALL THICKNESS IN INCHES

EG. 0.375" OD X 0.065" WALL TUBING = M304TR0.375W.065

B	REFORMAT DWG. ADD SPECS (ZN D8-1), REF PAR 08-020A	CP	08-10-20
A	NEW ISSUE	DS	01.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN	<b>DART AEROSPACE LTD</b>		
DRAWN	<i>[Signature]</i>	DRAWING NO. M304TR	HAWKESBURY, ONTARIO CANADA
CHECKED	<i>[Signature]</i>	REV. B	SHEET 1 OF 1
MFG. APPR.	<i>[Signature]</i>	TITLE 304/316 ROUND TUBING	SCALE NTS
APPROVED	<i>[Signature]</i>		
DE APPR.	<i>[Signature]</i>		
DATE	08.10.20		

**RELEASED**  
*2/26/23 AM*

1  
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 7  
 8

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061+6TC,750W,125  
 DATE: AUG 31 2017

PO / BATCH NO.: PC37490/M138403

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 241  
 QUANTITY INSPECTED: 241  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: W.125  
 THICKNESS RECEIVED: W.125  
 SHEET SIZE ORDERED: \_\_\_\_\_  
 SHEET SIZE RECEIVED: \_\_\_\_\_

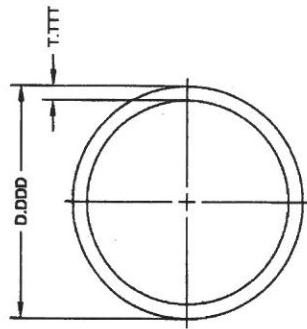
DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORROSION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="radio"/> N <input type="radio"/>	Astm B210
CORRECT THICKNESS	Y <input checked="" type="radio"/> N <input type="radio"/>	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="radio"/> N <input type="radio"/>	++ # FCO245200
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N <input type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>5</u> <u>9-69</u>	SIGNED OFF BY: _____
DATE: AUG 31 2017	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



△  
C

PURCHASE MATERIAL: 6061-T6/T62/T6511W/6511 SEAMLESS TUBING

SPECIFICATION:  
WW-T-700/6  
OR QQ-A-200/8 OR QQ-A-225/6  
OR AMS 4086 OR AMS 4082 OR AMS 4083  
OR ASTM B210 OR ASTM B241  
△  
C

DAS

PART NUMBER:  
M6061T6T[D.DDD]W[T.TT]  
OD WALL  
9-89

WHERE "D.DDD" = OD IN INCHES

"T.TTT" = WALL THICKNESS

EG. 348" OD X 0.058 WALL = M6061T6T0.375W0.058

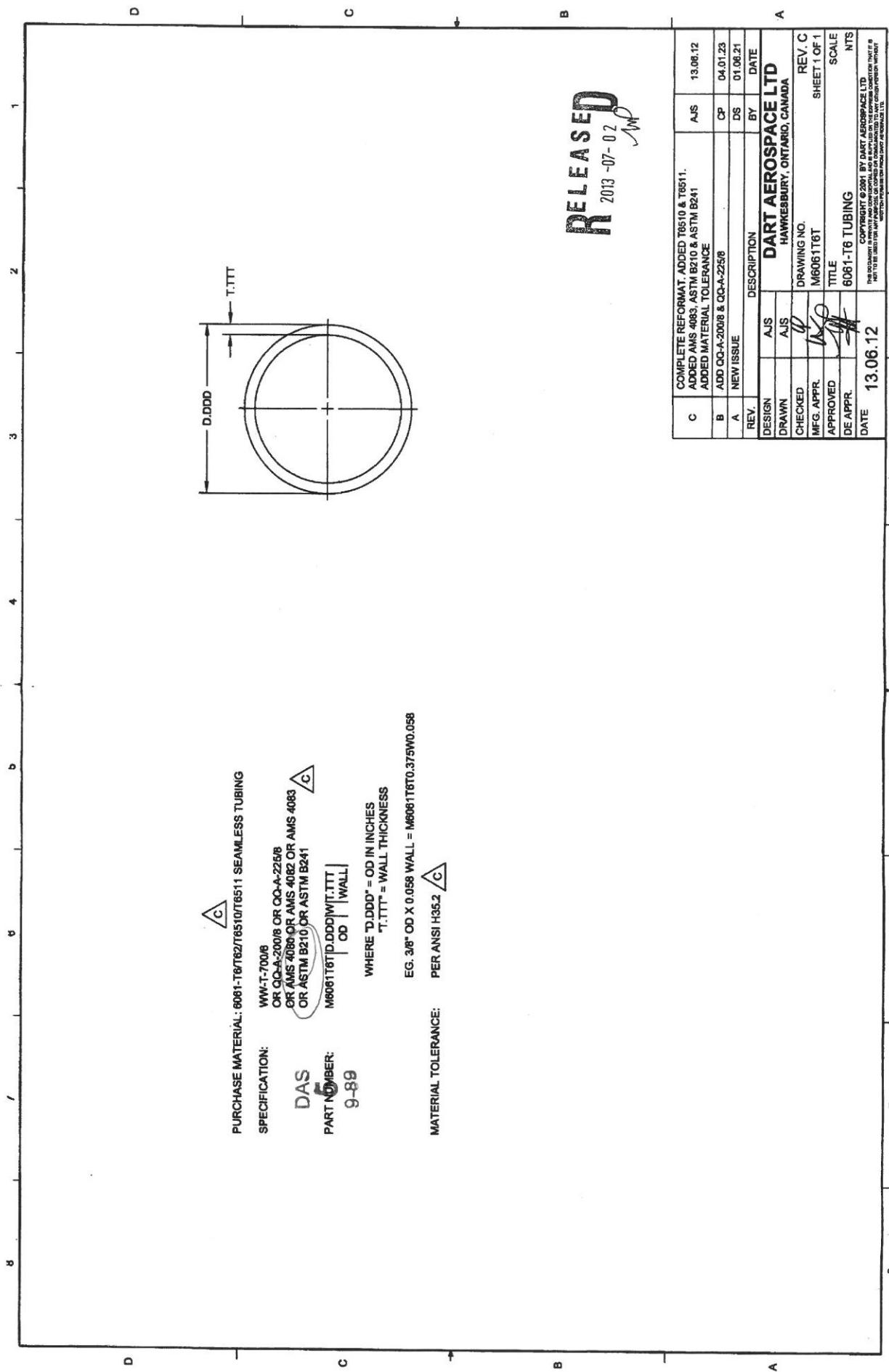
MATERIAL TOLERANCE:  
PER ANSI H35.2 △  
C

RELEASED  
2013-07-02  
△  
C

REV.		DESCRIPTION	BY	DATE
C		COMPLETE REFORMAT, ADDED T6510 & T6511.	AJS	13.08.12
		ADDED AMS 4083, ASTM B210 & ASTM B241		
B		ADDED MATERIAL TOLERANCE:	CP	04.01.23
A		ADD QQ-A-200/8 & QQ-A-225/6	DS	01.08.21
		NEW ISSUE		
REV.				
DESIGN	AJS	DART AEROSPACE LTD		
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA		
CHECKED	Y	REV. C		
MFG. APPR.	JK	SHEET 1 OF 1		
APPROVED	JK	TITLE		
DE APPR.	JK	SCALE		
DATE	13.06.12	NTS		

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1





Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO37490

Purchase Order Date 8/21/2017

PO Print Date 8/21/2017

Page Number 1 of 3

Order From : VU-TWM001  
TW METALS  
PO BOX 933014  
ALTANTA, GA 31193-3014  
US

Ship To : DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

E-MAILED  
AUG 21 2017

Contact Name  
Vendor Phone 585 768 5600  
  
Ship To Contact  
Ship To Phone  
Ship Via: YRC COLLECT  
Ship Acct:

Buyer Chantal Lavoie  
Customer POID  
Customer Tax # 10127-2607  
Terms Net 30  
Currency USD  
FOB FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	M304TR0.500W.035	304 RD Tube .500 x .035W	8/29/2017 Yes 8/29/2017		40.00 f	\$1.50	\$60.00
2	M304TR0.750W.049	304 RD Tube .750 x .049W	8/29/2017 Yes 8/29/2017		60.00 f	\$2.10	\$126.00

MATERIAL: AISI 304/316 SA SEAMLESS ROUND TUBING  
AS PER ASTM A213 OR AMSE SA213 OR ASTM A269

2	M304TR0.750W.049	304 RD Tube .750 x .049W	8/29/2017 Yes 8/29/2017		60.00 f	Line Total: \$2.10	\$126.00
---	------------------	--------------------------	-------------------------------	--	---------	-----------------------	----------

MATERIAL: AISI 304/316 SA SEAMLESS ROUND TUBING  
AS PER ASTM A213 OR AMSE SA213 OR ASTM A269

Note:



Dart Aerospace Ltd.  
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Hawkesbury, ON K6A 1K7  
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Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO37490

Purchase Order Date 8/21/2017

PO Print Date 8/21/2017

Page Number 2 of 3

Order From : VU-TWM001  
  
TW METALS  
PO BOX 933014  
ALTANTA, GA 31193-3014  
US

Ship To : DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Contact Name  
Vendor Phone 585 768 5600

Buyer Chantal Lavoie  
Customer POID

Ship To Contact  
Ship To Phone  
Ship Via: YRC COLLECT  
Ship Acct:

Customer Tax # 10127-2607

Terms Net 30

Currency USD

FOB FCA - (Free Carrier)

3 M304TR0.875W.065 ✓ 304 round tube .875 x ✓ 8/29/2017 20.00 ✓ \$4.20 ✓ \$84.00  
.065w  
Yes f  
8/29/2017

MATERIAL: AISI 304/316 SA SEAMLESS ROUND TUBING  
AS PER ASTM A213 OR AMSE SA213 OR ASTM A269

4 M6061T6T0.750W.125 ✓ 6061-T6 RD Tube .750 x ✓ 8/29/2017 20.00 ✓ \$9.20 ✓ \$184.00  
.125W  
Yes f  
8/29/2017  
Reel 24 ft  
SPN 8-30

MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING  
AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR  
AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR  
ASTM B241

Line Total: \$84.00

20.00

\$184.00

Line Total: \$184.00

Note:



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO37490**

Purchase Order Date 8/21/2017  
PO Print Date 8/21/2017

Page Number 3 of 3

Order From : VU-TWM001

TW METALS  
PO BOX 933014  
ALTANTA, GA 31193-3014  
US

Ship To : DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Contact Name  
Vendor Phone 585 768 5600

Buyer Chantal Lavoie  
Customer POID  
Customer Tax # 10127-2607  
Terms Net 30  
Currency USD  
FOB FCA - (Free Carrier)

Ship To Contact  
Ship To Phone  
Ship Via: YRC COLLECT  
Ship Acct:

5 71401-45 PROCUREMENT 8/29/2017 1.00 \$0.00 \$0.00  
QUALITY CLAUSES

No 8/29/2017

Procurement Quality Clauses  
A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification  
A026 certification of material conformance  
A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

Line Total: \$0.00

PO Total: \$454.00

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Change Nbr:

1

Change Date: 8/21/2017